

19990203.ba v02\_n412.bam.990203 v02\_n413.bam.990203

>From ???@??? Wed Feb 03 18:10:48 1999  
Date: Wed, 3 Feb 1999 08:09:11 CST  
From: Old Tube Radios <boatanchors@theporch.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: BOATANCHORS digest 2412  
Message-Id: <19990203135901.4BAF0114E7@devel43.theporch.com>

## BOATANCHORS Digest 2412

Topics covered in this issue include:

- 1) FS or Trade:HRO 60 Coil Set  
by sbrovas <sbrovas@tir.com>
- 2) FS: HRO-50 B Coil  
by sbrovas <sbrovas@tir.com>
- 3) FS: Partial Collins CP-1 Crystal Pack  
by sbrovas <sbrovas@tir.com>
- 4) FS: RME VHF 152A 2,6 10/11 meter converter  
by sbrovas <sbrovas@tir.com>
- 5) FS: Heath Seneca 6&2 Mtr Xmtr  
by sbrovas <sbrovas@tir.com>
- 6) FS: Drake TR-4 xcvr  
by sbrovas <sbrovas@tir.com>
- 7) National "J"Coil for HRO-?  
by AviDov@aol.com
- 8) Millen Absorption meters  
by Jderm740@aol.com
- 9) FS: NCX-3 Parts Unit  
by "ROBERT F. KEMP" <rkemp@mr.net>
- 10) Re: Millen Absorption meters  
by Sandy W5TVW <ebjr@worldnet.att.net>
- 11) Re: Millen Absorption meters  
by "Richard" <rbrunner@gis.net>
- 12) Mil Manuals for sale  
by "Joseph W. Pinner" <kc5ijd@sprintmail.com>
- 13) Re: Millen Absorption meters  
by ail0@lehigh.edu (ARTHUR I. LARKY)
- 14) Stewart-Warner Military gear  
by "Dennis Doonan" <w9dad@wi.net>
- 15) HP & Boonton rack gear  
by "Dennis Doonan" <w9dad@wi.net>
- 16) S.S. 1L6 replacement, need back issue  
by "Benjamin D. Hall" <kd5byb@WT.NET>
- 17) Re: Battery on Concrete?  
by Henry van Cleef <vancleef@netcom.com>
- 18) Standard Resistor and Capacitor Values

- by "Barry L. Ornitz" <ornitz@tricon.net>
- 19) TV-7 D/U settings  
by "Lamb, Charles E MD (IndSys, SalemVA)" <Charles.Lamb@indsys.ge.com>
  - 20) TMC still in business ??  
by John Russo <jprusso@acsu.buffalo.edu>
  - 21) BA gear  
by "Paul Bernhard Sr." <w2tu@email.msn.com>
  - 22) Magazine update  
by "Paul Bernhard Sr." <w2tu@email.msn.com>

-----  
Message-ID: <36B75625.33D942E@tir.com>  
Date: Tue, 02 Feb 1999 11:46:45 -0800  
From: sbrovas <sbrovas@tir.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: FS or Trade:HR0 60 Coil Set  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi All,

I have the following HR0-60 coil set for sale:

- A. 14.0-30.0/27.0-30 mhz
- B. 7.0-14.4/14.0-14.4 mhz
- C. 3.5-7.3/7.0-7.3 mhz
- D. 1.7-4.0/3.5-4.0 mhz
- E. 900-2050 khz
- F. 480-960 khz
- G. 180-430 khz
- H. 100-200 khz
- I. 50-100 khz

Complete set with wooden case to hold modules.

Will ship UPS for \$465 or trade toward a Collins receiver (75A-4,  
75S-3B.....) or tranceiver (KWM-2A, w/supply).  
73's de Bill, WA1APX/8

-----  
Message-ID: <36B756F9.328C8C48@tir.com>  
Date: Tue, 02 Feb 1999 11:50:17 -0800  
From: sbrovas <sbrovas@tir.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: FS: HR0-50 B Coil  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi All,

I have an HRO-50 B Coil which is in overall nice shape. The receiver had been heavily damaged and is being parted out.

B Coil covers 7.0-14.4/14.0-14.4 mhz bandspread.

Price is \$50 shipped UPS

73's de Bill, WA1APX/8

-----  
Message-ID: <36B758D3.730B4CC@tir.com>

Date: Tue, 02 Feb 1999 11:58:11 -0800

From: sbrovas <sbrovas@tir.com>

MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>

Subject: FS: Partial Collins CP-1 Crystal Pack

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Hi All,

I have an average condition Collins crystal pack for sale. Plastic holders are ok, but case is not collector quality. The standard crystals are not included, and 6 optional crystals are missing. The set does have the 30 & 12 meter crystals.

Price would be \$110 shipped.

73's de Bill, WA1APX/8

-----  
Message-ID: <36B75982.F77ADF7F@tir.com>

Date: Tue, 02 Feb 1999 12:01:06 -0800

From: sbrovas <sbrovas@tir.com>

MIME-Version: 1.0

To: Old Tube Radios <boatanchors@theporch.com>

Subject: FS: RME VHF 152A 2,6 10/11 meter converter

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Hi All,

I have an RME VHF-152A Converter. It is in overall excellent condition, with a copy of documentation. Price is \$75+UPS.

73's de Bill, WA1APX/8

-----  
Message-ID: <36B75A77.1393A8EE@tir.com>

Date: Tue, 02 Feb 1999 12:05:12 -0800

From: sbrovas <sbrovas@tir.com>

MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: FS: Heath Seneca 6&2 Mtr Xmtr  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi All,

I have a Heath Seneca VHF-1 6&2 Meter xmtr. It is in nice cosmetic shape, and working condition. Comes with a copy of the manual.  
\$75+shipping.  
73's de Bill, WA1APX/8

-----  
Message-ID: <36B75C3D.3F5ACCEB@tir.com>  
Date: Tue, 02 Feb 1999 12:12:46 -0800  
From: sbrovas <sbrovas@tir.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: FS: Drake TR-4 xcvr  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi All,

I have a Drake TR-4 XCVR for sale without power supply. It is in working condition, but output is 170 on 80 mtrs and 100 watts on 10 meters, so probably soft tubes. It does have full 10 meter coverage. Copper chassis is less than 10% discolored. Faceplate is excellent. Cabinet is average+. Comes with full copy of manual.

Rig receives well and transmits with lower power output than spec. Would be a good spare, or for parts (filters, crystals, etc....) Price is \$160 shipped UPS.  
73's de Bill, WA1APX/8

-----  
From: AviDov@aol.com  
Message-ID: <deb2b9cc.36b73ee1@aol.com>  
Date: Tue, 2 Feb 1999 13:07:29 EST  
To: Old Tube Radios <boatanchors@theporch.com>  
Mime-Version: 1.0  
Subject: National "J"Coil for HRO-?  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Need to know which version of the HRO series uses the J (3.5- 7.3Mc) Coil Set.

The front panel has a smooth grey paint finish which suggests it may be for

HRO-7. 73

-----  
From: Jderm740@aol.com  
Message-ID: <cfc39300.36b742a8@aol.com>  
Date: Tue, 2 Feb 1999 13:23:36 EST  
To: Old Tube Radios <boatanchors@theporch.com>  
Mime-Version: 1.0  
Subject: Millen Absorption meters  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Hi

How do you use these things? What is the indicator when they are tuned correctly?

You hold them like you are douseing for something, and do they suddenly tremble in you hand?

Inquireing mind want to know.

Jack            Jderm740@aol.com

-----  
Message-ID: <36B77AA8.E6C@mr.net>  
Date: Tue, 02 Feb 1999 14:22:32 -0800  
From: "ROBERT F. KEMP" <rkemp@mr.net>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: FS: NCX-3 Parts Unit  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Anchorites:

Anyone have an interest in a NCX-3 with power supply. Finals missing, looks like there was a little fire underneath! Grill on p/s dented cabinet there, all except two knobs. \$90.00 shipped to you door!

First come first served.

Bob.

-----  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
To: Old Tube Radios <boatanchors@theporch.com>  
From: Sandy W5TVW <ebjr@worldnet.att.net>  
Subject: Re: Millen Absorption meters  
Message-Id: <19990202202829.IKRY21453@LOCALNAME>  
Date: Tue, 2 Feb 1999 20:28:29 +0000

At 01:23 PM 2/2/99 EST, you wrote:

>Hi

>How do you use these things? What is the indicator when they are tuned  
>correctly?

>You hold them like you are douseing for something, and do they suddenly  
>tremble in you hand?

>Inquireing mind want to know.

>

>Jack Jderm740@aol.com

>

>

The "wavemeter" goes back to almost the beginning of radio. It is simply a tuned circuit calibrated as to its resonant frequency at the various settings of its dial. Some use no built-in indicator, some use a lamp or meter for an indication of RF present.

They can be coupled to any oscillator's "tank" circuit as loosely as possible (to still get an indication) and tuned thru the desired range. You can get a rough idea of frequency that the oscillator is working on, and if the output contains some high level harmonics. If the wavemeter has no neon or other indicator, the oscillator's frequency will be "pulled" or a flicker will be noticed in the oscillator's grid current when the resonant point is tuned past. Wavemeters with indicators can be used to find parasitic oscillations or self-oscillation in amplifiers.

They can be very handy in finding out if a doubler or tripler stage is indeed tuned to the proper harmonic of the driver. They can be used with radio receiver oscillators to find out if the offset is higher or lower than the input signal. (Sum or difference of the IF frequency in a superhet). They can be used to calibrate a regenerative receiver to the same accuracy as the wavemeter is calibrated. (The wavemeter will pull the detector out of oscillation when tuned past resonance).

Other uses have been largely superceded by more modern test gear, but they are still very useful. Hope this helps.

73,

Sandy W5TVW

-----  
Message-Id: <199902022104.QAA09091@home.gis.net>

From: "Richard" <rbrunner@gis.net>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: Millen Absorption meters

Date: Tue, 2 Feb 1999 15:36:14 -0500

MIME-Version: 1.0

Content-Type: text/plain; charset=ISO-8859-1

Content-Transfer-Encoding: 7bit

Very simple! You observe the disturbance of the circuit that you couple to. For example; grid current will dip as you tune through resonance, or

in a receiver the signal may disappear as you tune through resonance, etc.

Some absorption meters will have a small lamp or meter to indicate resonance when used with transmitters.

Richard Brunner, AA1P, rbrunner@gis.net

-----  
Message-Id: <199902022218.0AA27476@crow.prod.itd.earthlink.net>  
Subject: Mil Manuals for sale  
Date: Tue, 2 Feb 1999 16:21:41 -0600  
From: "Joseph W. Pinner" <kc5ijd@sprintmail.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="US-ASCII"

Mil Handbook 161A(TM11-487),1964 three volume set \$  
125 + shipping

Directory of Communication Equipment: Navships 94200.1 Volume 9  
35 + shipping

GRR-5 Partial copy of TM 11-295  
7.50 shipped

TRC-77 TM 11-5820-473-12 (copy w/schematic)  
10 shipped

SCR-284A TM 11-275 (copy)  
15 shipped

FM 24-24 (77) original, but somewhat ratty though completely useable  
18 shipped

Joseph W Pinner  
EMail: kc5ijd@sprintmail.com

Joseph W Pinner +  
Lafayette, LA  
KC5IJD  
EMail: kc5ijd@sprintmail.com

-----  
Message-Id: <199902022217.RAA25900@ns5-1.CC.Lehigh.EDU>  
Date: Tue, 02 Feb 1999 17:17:43 EST  
From: ail0@lehigh.edu (ARTHUR I. LARKY)  
Subject: Re: Millen Absorption meters

To: Old Tube Radios <boatanchors@theporch.com>

>Hi

>How do you use these things? What is the indicator when they are tuned  
>correctly?

>You hold them like you are douseing for something, and do they suddenly  
>tremble in you hand?

>Inquireing mind want to know.

>

>Jack Jderm740@aol.com

>

You hold the coil near an rf source and turn the knob (i.e., tune the capacitor). There is a tiny neon which will light up when you get to the right frequency. Of course, you need enough power and the calibration is a dozen marks across 180 degree rotation of the dial.

I'm still looking for someone to tell me with what transmitter(s) it was intended to be used.

Art

-----  
Message-ID: <003301be4efe\$81fc2e00\$9596facf@w9dad>

From: "Dennis Doonan" <w9dad@wi.net>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Stewart-Warner Military gear

Date: Tue, 2 Feb 1999 16:51:01 -0600

MIME-Version: 1.0

Content-Type: multipart/alternative;

boundary="-----\_NextPart\_000\_0030\_01BE4ECC.36DB7700"

This is a multi-part message in MIME format.

-----\_NextPart\_000\_0030\_01BE4ECC.36DB7700

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: quoted-printable

For SALE:

R-392/URR, works fine, looks good. Complete--as far as I can tell. Includes manual copy, modern power supply with connector, LS-166 speaker with connector. I really prefer not to ship this. Pick up in southeastern Wisconsin. \$235

BC-348Q, converted, looks and work great. Includes manual copy \$175

Dennis, W9DAD



w9dad@wi.net

-----=\_NextPart\_000\_0030\_01BE4ECC.36DB7700

Content-Type: text/html;

charset="iso-8859-1"

Content-Transfer-Encoding: quoted-printable

<!DOCTYPE HTML PUBLIC "-//W3C//DTD W3 HTML//EN">

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<META content=3D'"MSHTML 4.72.3110.7"' name=3DGENERATOR>

</HEAD>

<BODY bgColor=3D#ffffff>

<DIV><FONT color=3D#000000 size=3D2>For SALE:<BR></FONT></DIV>

<DIV><FONT color=3D#000000 size=3D2>R-392/URR, works fine, looks =  
good.&nbsp;=20

Complete--as far as</FONT></DIV>

<DIV><FONT color=3D#000000 size=3D2>I can tell.&nbsp; Includes manual =  
copy, modern=20

power supply with</FONT></DIV>

<DIV><FONT color=3D#000000 size=3D2>connector,&nbsp; LS-166 speaker with =

connector.&nbsp; I really prefer</FONT></DIV>

<DIV><FONT color=3D#000000 size=3D2>not to ship this.&nbsp; Pick up in =  
southeastern=20

Wisconsin. \$235</FONT></DIV>

<DIV><FONT color=3D#000000 size=3D2></FONT>&nbsp;</DIV>

<DIV><FONT color=3D#000000 size=3D2>BC-348Q, converted, looks and work =  
great.&nbsp;=20

Includes</FONT></DIV>

<DIV><FONT color=3D#000000 size=3D2>>manual copy \$175</FONT></DIV>

<DIV><FONT color=3D#000000 size=3D2></FONT>&nbsp;</DIV>

<DIV><FONT color=3D#000000 size=3D2>Dennis, W9DAD</FONT></DIV>

<DIV><FONT color=3D#000000 size=3D2><A=20

href=3D"mailto:w9dad@wi.net">w9dad@wi.net</A></FONT></DIV>

<DIV><FONT color=3D#000000 size=3D2></FONT>&nbsp;</DIV></BODY></HTML>

-----=\_NextPart\_000\_0030\_01BE4ECC.36DB7700--

-----  
Message-ID: <003b01be4efe\$e9cc69a0\$9596facf@w9dad>

From: "Dennis Doonan" <w9dad@wi.net>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: HP & Boonton rack gear

Date: Tue, 2 Feb 1999 16:53:46 -0600  
MIME-Version: 1.0  
Content-Type: multipart/alternative;  
boundary="----=\_NextPart\_000\_0038\_01BE4ECC.994CE180"

This is a multi-part message in MIME format.

-----=\_NextPart\_000\_0038\_01BE4ECC.994CE180  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

For SALE:  
H-P 650A test oscillator (audio)  
Boonton 202H signal generator (VHF)  
19" rack mount cabinet.  
All works and is in good shape. Manual  
included (not for the GE rack cabinet)  
All for \$75 picked up only in se Wisconsin

Dennis, W9DAD  
w9dad@wi.net

-----=\_NextPart\_000\_0038\_01BE4ECC.994CE180  
Content-Type: text/html;  
charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

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http-equiv=3DContent-Type>  
<META content=3D'"MSHTML 4.72.3110.7"' name=3DGENERATOR>  
</HEAD>  
<BODY bgColor=3D#ffffff>  
<DIV><FONT color=3D#000000 size=3D2>For SALE:</FONT></DIV>  
<DIV><FONT color=3D#000000 size=3D2>H-P 650A test oscillator =  
(audio)</FONT></DIV>  
<DIV><FONT color=3D#000000 size=3D2>Boonton 202H signal generator =  
(VHF)</FONT></DIV>  
<DIV><FONT color=3D#000000 size=3D2>19" rack mount =  
cabinet.</FONT></DIV>  
<DIV><FONT color=3D#000000 size=3D2></FONT><FONT size=3D2>All works and =  
is in good=20  
shape.&nbsp;Manual</FONT></DIV>

<DIV><FONT size=3D2>included (not for the GE rack cabinet)</FONT></DIV>  
<DIV><FONT color=3D#000000 size=3D2>All for \$75 picked up only in se=20  
Wisconsin</FONT></DIV>  
<DIV><FONT color=3D#000000 size=3D2></FONT>&nbsp;</DIV>  
<DIV><FONT color=3D#000000 size=3D2>Dennis, W9DAD</FONT></DIV>  
<DIV><FONT color=3D#000000 size=3D2><A=20  
href=3D"mailto:w9dad@wi.net">w9dad@wi.net</A></FONT></DIV>  
<DIV><FONT color=3D#000000 size=3D2></FONT>&nbsp;</DIV></BODY></HTML>

-----=\_NextPart\_000\_0038\_01BE4ECC.994CE180--

-----  
Message-Id: <3.0.32.19990202184414.007ae460@mail.wt.net>  
Date: Tue, 02 Feb 1999 18:44:17 -0600  
To: Old Tube Radios <boatanchors@theporch.com>  
From: "Benjamin D. Hall" <kd5byb@WT.NET>  
Subject: S.S. 1L6 replacement, need back issue  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

Greetings everyone...

While browsing thru my local radio club's newsletter, I saw an article on a solid state replacement for the ever-expensive 1L6 tube. E-mail me direct and I'll send it out in Adobe PDF format.

While I'm at it, I might as well go all the way out into solid state land. Does anyone have an April 1998 issue of Nuts and Volts? I need an article from it that has to do with LCD interfacing for an add-on BA frequency display...

Thanks and 73,  
Ben

---  
Benjamin D. Hall, KD5BYB, Engine and radio collector / operator.  
Located in Houston, Texas, USA.  
e-mail: kd5byb@WT.net, web: \*\*\*down for refurbishment\*\*\*  
"An ye harm none, do what ye will."

-----  
From: Henry van Cleef <vancleef@netcom.com>  
Message-Id: <199902030522.VAA08578@netcom17.netcom.com>  
Subject: Re: Battery on Concrete?  
To: Old Tube Radios <boatanchors@theporch.com>  
Date: Tue, 2 Feb 1999 22:22:32 -0700 (MST)  
Cc: boatanchors@theporch.com  
MIME-Version: 1.0

Content-Type: text/plain; charset=US-ASCII  
Content-Transfer-Encoding: 7bit

As Jerry Proc discourses

>  
> Hi Group,  
>  
> I'm doing some load tests on a used, maintenance-free car battery in  
> order to see if it's suitable for use as a BA power source. A friend to  
> mine told me not to store the battery on a concrete floor or metal  
> surface, otherwise it loses its charge quite rapidly.  
>  
(snippity snippity)

A lot of others have had their say on batteries. I, too, was "educated" some fifty years ago never to leave a hard rubber cased automotive storage battery on concrete, but I have never explored the reasons why this bit of folk knowledge exists, or whether it is true in fact.

So far as automotive type battery service and life goes, they aren't designed to go through many deep discharge cycles, but do have very low internal resistance so that they can take starting loads up to about 500 amps and short running loads of about 200 amps (normal starting cycle in an automobile). For all other operations, the vehicle generator supplies the load, with the battery across the line as a smoothing device, for which it is very effective. Proper "float" voltage depends on temperature, with 13.8 volts appropriate for 35C, and about 14.3 for 0C. Most small battery chargers are constant current devices, which means that they'll pump out their rated current at voltages on the order of 15 or 16 volts. An automotive generating system is a current-limited (in AC generators, by the shift in the magnetic field when supplying high current---third brush DC generators work the same way) constant voltage supply, with the operating voltage temperature-compensated.

A dynamotor load with a constant voltage supply that can supply most of the running current should work well with an automotive battery. Constant voltage is the characteristic of most transformer-and-diode supplies, as most transformers not purpose-designed for battery charger service have a relatively low internal impedance.

Modern-day batteries have plastic cases rather than hard rubber, which should be relatively impervious to electrolyte migration. Specific gravity of the electrolyte in a fully charged battery is 1.250 (relative to water, which is 1.00), which represents about 20% sulfuric acid in water. The volume of the electrolyte increases as the battery approaches full charge, so you should not bring up the

electrolyte level above the plates unless the battery is fully charged.

High plate temperature is a real killer of batteries. You don't want to make a habit of running serious charging current into the battery for any protracted period. A 10 amp charger will ruin a perfectly good 25 Amp-hour aircraft battery if left on it for much more than an hour. 1 amp is a good rate for these. The end-of-charge condition (i.e., fully charged) is accompanied by a marked increase in generation of free oxygen and hydrogen in the electrolyte (bubbling).

In automotive or light aircraft service, I like to remove the battery about once a year, wash off its case (soap and water, and a water rinse---don't get soap in the cells). Also gives a chance to clean the cradle and terminals. I've seen a good battery lose its charge in 6-8 weeks in warm weather due to leakage across the crud that forms on the top between terminals (the side terminal jobs are much better about this).

"Sulphating" comes when a battery is stored partially or fully-discharged. The battery may come up to full charge in terms of specific gravity, but won't supply current to a heavy load. The old way of dealing with this (WW II era) was to hook about a half amp charge across the battery and leave it there for a week. I've done it, and it works.

So those are a few of my observations.

--

=====  
Hank van Cleef  
=====

-----  
From: "Barry L. Ornitz" <ornitz@tricon.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: "Barry L. Ornitz @ DPNET" <ornitz@dpnet.net>  
Subject: Standard Resistor and Capacitor Values  
Date: Wed, 3 Feb 1999 03:41:32 -0500  
Message-ID: <01be4f51\$000ab6c0\$6b4d62d8@ornitz.dpnet.net>  
MIME-Version: 1.0  
Content-Type: text/plain;  
        charset="utf-8"  
Content-Transfer-Encoding: 7bit

Did you ever wonder where the standard values of resistors and capacitors came from? Why did values like 47 ohms come to be rather than 50 ohms? Well the answer really has more to do with music than with electronics.

Assuming you can manufacture an electronic component to a given tolerance, what are the best set of values to provide over a range? The answer is the same as in music. Each value is related to its neighboring value by a fixed relationship. We normally think that any value of resistance can be matched to within 10 percent with the proper choice of a 10 percent tolerance resistor.

In music, there are twelve notes in an octave (forget the 8 regular notes, I am including the sharps and flats here). The relationship between these is that the next higher note's frequency can be obtained by multiplying the present frequency by 1.21153. The frequency of the next lower note can be obtained by dividing it by the same constant. With 12 notes in an octave, this constant is the 12th root of 2. Maybe there is a music theory expert on the group that can explain why an octave, which from its origin implies something to do with 8, really means a doubling or halving of frequency. \*

In electronics, we need many decades of component values so decades are used rather than octaves. Thus a similar relationship holds. The standard 20% value components are based on the 6th root of 10 and the standard 10% components are based on the 12th root of 10. Likewise the standard 5% components are based on the 24th root of 10. But the standard 1% components are slightly different being based on the 96th root of 10 instead of the expected 120th root.

The boatanchor relationship comes about here because in the early days of radio, it was difficult to manufacture components to tight tolerances. Sometimes you might think a resistor has drifted in value (and \_many\_ do), but it might really be within the original 20% tolerance. Those old designers, fortunately, built good radios that would "tolerate" this. You cannot always say the same about modern "intolerant" designers.

So for those interested, here is a table of standard 20, 10, and 5% values along with the "exact" value taken from the math.

73, Barry WA4VZQ ornitz@tricon.net

\* Do I reads moosik? Not enuf' to hurts me pickin' any. (Carl Yaffey can translate this if needed.)

-----

True Value -----> Rounded to in the standard series:

	20%	10%	5%
1.00000	1.0	1.0	1.0
1.10069			1.1
1.21153		1.2	1.2
1.33352			1.3
1.46780	1.5	1.5	1.5
1.61560			1.6

1.77828		1.8	1.8
1.95734			2.0
2.15443	2.2	2.2	2.2
2.37137			2.4
2.61016		2.7	2.7
2.87298			3.0
3.16228	3.3	3.3	3.3
3.48070			3.6
3.83119		3.9	3.9
4.21696			4.3
4.64159	4.7	4.7	4.7
5.10897			5.1
5.62341		5.6	5.6
6.18966			6.2
6.81292	6.8	6.8	6.8
7.49894			7.5
8.25404		8.2	8.2
9.08518			9.1
10.0000	10.0	10.0	10.0

-----  
 Message-ID: <ED376DB16DFFD01189E700805F1961B501A2495A@vasale02misge.salem.ge.com>  
 From: "Lamb, Charles E MD (IndSys, SalemVA)" <Charles.Lamb@indsys.ge.com>  
 To: Old Tube Radios <boatanchors@theporch.com>  
 Subject: TV-7 D/U settings  
 Date: Wed, 3 Feb 1999 08:58:34 -0500

Hello fellow BA folk

I am restoring a piece of equipment that uses a 6KE8 triode/pentode as a mixer. My suspicions are that this bottle is bad based on some measurements taken in the shop. Unfortunately, my TV-7 manual does not list this beast (nor do Jose's pages) and despite having shelves full of NOS tubes collected over the years, my stash yields no spare. I do have the information on the characteristics from my manual, so could probably rig a crude test, but the best solution would be a spare. So two questions:

Does anyone know the tester settings OR can anyone supply me with a replacement?

My search of tube sub tables provides no joy - even at other filament voltages

Please feel free to reply directly rather than to the list.

Thanks!

Charles

Charles E. Lamb  
WD4KZK  
<Charles.Lamb@indsys.ge.com>

-----  
Message-ID: <36B85773.C2326FDA@acsu.buffalo.edu>  
Date: Wed, 03 Feb 1999 09:04:40 -0500  
From: John Russo <jprusso@acsu.buffalo.edu>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: TMC still in business ??  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi gang, I have a rack mount boatanchor TMC ssb exciter and need to track down a manual.

I was given a phone # for Technical Materials Company in New York state by the phone company and when I dial that number it just rings.

Is TMC still in business ???

Thanks, John           KF2JQ

-----  
Message-ID: <000201be4f7e\$3c1475c0\$135a2299@default>  
From: "Paul Bernhard Sr." <w2tu@email.msn.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: BA gear  
Date: Wed, 3 Feb 1999 08:59:45 -0500

Hi all;

Picked up a carfull of BA's yesterday and found a couple interesting ones. First, A National HRO-W in beautiful shape, 4 coil sets, and it works! Had the speaker and Pwr supply (697) also. Included was a National 1-10A regen with all the coils. My question, it had a power plug similiar to the HRO. Does it plug into that same supply?

Another was a beautiful Freq meter, BC-221AK, A lab model with a listed min. error of .00025%. It had a four prong jones plug input for 117 VAC but I haven't opened it to check the proper pin in connections.

I want to raise some bucks to fund the USS Sullivans Station when the park opens April 1st so will be taking these and others to thre Chatauqua County Hamfest on Feb. 13th in Westfield.

Thanks for any info on the gear.

Paul B. W2TU



w2tu@email.msn.com

-----  
Message-ID: <000301be4f7e\$423cb160\$135a2299@default>  
From: "Paul Bernhard Sr." <w2tu@email.msn.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Magazine update  
Date: Wed, 3 Feb 1999 09:03:53 -0500

For all who responded to my listing of Ham mags. Thanks very much for the interest. I have passed your email messages and addresses to the friend who has the mags. (He's still sorting!) His younger brother is on line so he will get back to you. Thanks for your responses. He doesn't want to just throw them out.

Paul B. W2TU

w2tu@email.msn.com

-----  
End of BOATANCHORS Digest 2412  
\*\*\*\*\*

>From ???@??? Thu Feb 04 12:47:46 1999  
Date: Wed, 3 Feb 1999 23:16:39 CST  
From: Old Tube Radios <boatanchors@theporch.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: BOATANCHORS digest 2413  
Message-Id: <19990204050628.02710114DE@devel43.theporch.com>

BOATANCHORS Digest 2413

Topics covered in this issue include:

- 1) CW/satcom  
by agemi <agemi@stc.net>
- 2) CW VS : SATCOM  
by agemi <agemi@stc.net>
- 3) O 'scope WTB  
by Sandy Gerli <angerli@esslink.com>
- 4) 5100B - the rest of the story

- by cswiger <cswiger@wilma.widomaker.com>
- 5) Parts Source Recommendation  
by "Jay H. Miller" <jmiller@teleteam.net>
  - 6) Re: Parts Source Recommendation  
by Bruce Muscolino <w6toy@erols.com>
  - 7) Parts Source Recommendation  
by john <johnmb@mindspring.com>
  - 8) Re: Parts Source Recommendation  
by N5CM@aol.com
  - 9) NC-57  
by Jderm740@aol.com
  - 10) Re: Back issue  
by Jderm740@aol.com
  - 11) Re: Battery Chargers  
by Jderm740@aol.com
  - 12) Re: HRO-J Coil  
by Jderm740@aol.com
  - 13) Daburn.... interesting BA vendor  
by john <johnmb@mindspring.com>
  - 14) DeOxit -who has it and how did they get it  
by Brien Pepperdine <pepperb@gov.on.ca>
  - 15) Litature value estimate  
by w4tim@mindspring.com
  - 16) Re: NC-57  
by "Lawrence R. Ware" <lrware@pipeline.com>
  - 17) Re: NC-57  
by Niel Wiegand <nielw@ix.netcom.com>
  - 18) Re: Battery Chargers  
by Jerry Proc <jproc@idirect.com>
  - 19) EC8010  
by "Arden Allen" <gumbear@pacbell.net>
  - 20) Re: Standard Resistor and Capacitor Values  
by ail0@lehigh.edu (ARTHUR I. LARKY)

---

Date: Fri, 29 Jan 1999 03:48:31 -0500  
From: agemi <agemi@stc.net>  
Message-ID: <4158.990129@stc.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: CW/satcom  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

2/2/99

It is primarily a question of money. Ship owners have been complaining about the cost of carrying a radio officer for years. If they had

their way, we would have fully automated ships. (God help us.)

>From a safety standpoint, there are two sides to the discussion. There is not anything magic about reading data below the apparent noise level. It is common practice today.

One area of concern, is Electronic warfare. There is a lot of work being done in EW, Satcom is one of their main targets. GPS jammers are available on the open market.

I happen to work in EMI,EMP,HERF etc. Kind of a related business.

It's a sad day, the French CW operator could not have put it more elegantly.....

Roger KD4AS, ex W6ROZ, W9DEA et al

<mailto:agemi@stc.net>

-----  
Date: Fri, 29 Jan 1999 02:25:52 -0500  
From: agemi <[agemi@stc.net](mailto:agemi@stc.net)>  
Message-ID: <7101.990129@stc.net>  
To: Old Tube Radios <[boatanchors@theporch.com](mailto:boatanchors@theporch.com)>  
Subject: CW VS : SATCOM  
Mime-Version: 1.0  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

2/2/99

I have been reading with  
interest the

Best regards,

Agemi

<mailto:agemi@stc.net>

-----  
Message-ID: <36B898FB.E8975F9A@esslink.com>  
Date: Wed, 03 Feb 1999 13:44:11 -0500  
From: Sandy Gerli <[angerli@esslink.com](mailto:angerli@esslink.com)>  
MIME-Version: 1.0  
To: Old Tube Radios <[boatanchors@theporch.com](mailto:boatanchors@theporch.com)>  
Subject: O 'scope WTB  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Hi,

Looking for a decent scope in the 30-100mHz range with manual and probes. Better Heath, Tek, etc. Nothing so big that it needs a cart (haven't THAT much room!)

73,

--

Sandy Gerli, AC1Y  
500 Country Club Road  
Avon, CT 06001-2406  
(860) 675-5566  
E-Mail: angerli@esslink.com

Life Member: ARRL, QCWA  
Collins Collectors Association  
Hallicrafters Collectors Association

"Boatanchors are Ham Radio's living history!  
Get in touch with 'em. Restore something! Smell that hot solder!  
Sure beats booze. And, you can get up afterwards..."

-----  
Date: Wed, 3 Feb 1999 14:38:14 -0500 (EST)  
From: cswiger <cswiger@wilma.widomaker.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: 5100B - the rest of the story  
Message-ID: <Pine.BSF.3.96.990203143402.6844A-100000@wilma.widomaker.com>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Fanatical followers of firebottle fun:

A quick note to follow up - I had discussed a B&W5100B w/ PA problems where one tube would turn cherry red with plate I off the scale. Well I got in there Saturday to replace some modulator caps (complaints of hum on AM) and try the vfo stabilizing cap trick, but also found the PA screen resistors way off, 100 Ohm 2W 5% actually measured 140 and 50 Ohm - the 50 Ohm one broke in two with a little nudge. There was a wisp of smoke during one runaway episode, so, whether the tubes damaged the resistors or v-v, I dunno.

Mainly wanted to observe out loud, boy this thing is nicely modular! Getting the modulator module out of a non-B model was a pain but in the 'B' it's just 4 screws (on top now) and a couple of plugs and bob's your uncle it's outta there. Ditto's for the PA, vfo and buffer. Real sweet. Best bargain around if you ask me.

Chuck

kb4new  
cswiger@widomaker.com

-----  
Message-Id: <103130300b2de609b9eb6@[199.34.24.2]>  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"  
Date: Wed, 3 Feb 1999 15:32:54 -0500  
To: Old Tube Radios <boatanchors@theporch.com>  
From: "Jay H. Miller" <jmiller@teleteam.net>  
Subject: Parts Source Recommendation

With all the moaning going on about Ebay, I thought I'd toss out something positive....

I highly recommend the folks at Mouser Electronics for your parts and component needs. They have a complete website with their entire catalog available in Adobe Acrobat as well as a secure server for placing orders. All the guys who attended our CCA National Convention last October received a copy of the catalog and a CD Rom-- courtesy of the Mouser folks so they are definitely interested in the ham business (plus they exhibit every year at Hamcom).

Orders are sent out almost immediately (next day delivery to Dallas) and those I have received were complete, well-packed and without errors. Besides that when you call on the phone, A REAL LIVE PERSON answers the phone. They also will try and get things for you that are not in the catalog.

1-800-346-6873  
or <http://www.mouser.com>

In today's world of venom, complaining, grouching and unsatisfactory service, Mouser is a breath of fresh air.

To satisfy the sworn enemies of commercialism, I hereby state I own no stock nor reap any financial benefit from the commercial enterprises of Mouser Electronics in any shape, form or fashion.

73

\*\*\*\*\* ##### \*\*\*\*\*  
Jay H. Miller, KK5IM                      Dallas, Texas  
The Pocket Guide to Collins Amateur Radio Equipment  
ARRL \* AMI#846 \* DXCC  
E-Mail: [jmiller@teleteam.net](mailto:jmiller@teleteam.net)  
Visit My Home Page: <http://www.teleteam.com/~jmiller/>

\*\*\*\*\* Proud to be 100% Macintosh since 1984! \*\*\*\*\*

-----  
Message-ID: <36B8C5C8.1719@erols.com>  
Date: Wed, 03 Feb 1999 16:55:20 -0500  
From: Bruce Muscolino <w6toy@erols.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
CC: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Parts Source Recommendation  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Jay,

The Mouser catalog is available for a postcard, a phone call, and probably through the web! Why spend a week downloading a .PDF file when you can hold the real thing in your hands!

73

-----  
Message-Id: <3.0.3.32.19990203173435.00749444@mindspring.com>  
Date: Wed, 03 Feb 1999 17:34:35 -0500  
To: Old Tube Radios <boatanchors@theporch.com>  
From: john <johnmb@mindspring.com>  
Subject: Parts Source Recommendation  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

>With all the moaning going on about Ebay, I thought I'd toss out something  
>positive....

Jay mentions good things about Mouser....I'd second that suggestion and add MCM and (gasp) Tech America. The latter, while not having the width and breadth of stuff that Mouser does, has impressed me with accurate ordering, no minimums, VERY nominal processing fees and Real Human Beings on the phone .... couple this with very fast shipping and I'm a happy camper over several orders.

73!  
/John

+-----  
| John Brewer- WB50AU/4  
| AMI #24 Vintage Radio Website  
| <http://www.mindspring.com/~johnmb/>

+-----

-----  
From: N5CM@aol.com  
Message-ID: <d2871904.36b8e987@aol.com>  
Date: Wed, 3 Feb 1999 19:27:51 EST  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: boatanchors@theporch.com  
Mime-Version: 1.0  
Subject: Re: Parts Source Recommendation  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Hi John,

How's about Mouser's phone number and mail address!!!!  
Thanks,

Ken....N5CM....

-----  
From: Jderm740@aol.com  
Message-ID: <328224e1.36b8ef35@aol.com>  
Date: Wed, 3 Feb 1999 19:52:05 EST  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: boatanchors@theporch.com  
Mime-Version: 1.0  
Subject: NC-57  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Larry an all

I have a NC-57B and an NC-57 manual. Is there any difference between a 57  
Vannilla and a 57B. I figure if anybody knows Larry will.

Jack                Jderm740@aol.com

-----  
From: Jderm740@aol.com  
Message-ID: <2ba407b4.36b8ef32@aol.com>  
Date: Wed, 3 Feb 1999 19:52:02 EST  
To: Old Tube Radios <boatanchors@theporch.com>  
Mime-Version: 1.0  
Subject: Re: Back issue  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Ben

I'll look around and see if I still have that issue. If someone else beats me to it, let me know.

Jack Jderm740@aol.com

-----  
From: Jderm740@aol.com  
Message-ID: <57708bd5.36b8ef34@aol.com>  
Date: Wed, 3 Feb 1999 19:52:04 EST  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: boatanchors@theporch.com  
Mime-Version: 1.0  
Subject: Re: Battery Chargers  
Content-type: text/plain; charset=US-ASCII  
Content-transfer-encoding: 7bit

Hank

I love your disertations on many subjects and have learned a lot from them. But. I think you got the cart before the horse about the battery chargers. Everyone that I ever ran into was a constant voltage charger. At least the type we would run into. Sears or other) If you hook one of these to your car battery and measure the voltage across the terminals you get 14 to 15 volts and amperage from 0 to the max of the charger. 10 amps or so. As the charging continues the amps begin to drop, but the voltage stays the same. When the battery is fully charged the current is next to nil but the voltage is still up there.

On specific gravity the fully charged reading on my hydrometer is 1300 which should give you a terminal, unloaded, voltage of 12.6. (2.1 volts per cell times 6 cells)

A hydrometer can be a handy tool at times. I just had to replace a battery because of a shorted cell. Term to term was 10+ volts but when I checked the SP one cell was dead. But because it was shorted I still got term to term readings. Just not strong enough to spin the engine for starting. Lights worked. Radio played.

Jack Jderm740@aol.com

-----  
From: Jderm740@aol.com  
Message-ID: <d8b4a9a3.36b8ef30@aol.com>  
Date: Wed, 3 Feb 1999 19:52:00 EST  
To: Old Tube Radios <boatanchors@theporch.com>  
Cc: AviDov@aol.com  
Mime-Version: 1.0  
Subject: Re: HRO-J Coil  
Content-type: text/plain; charset=US-ASCII



Content-transfer-encoding: 7bit

Hi

The HRO "J" coil tunes 50-100kc. It fits the HRO-50 or 60.  
Some are painted a kind of gray and some a little more "metallic green"?

Jack        Jderm740@aol.com

-----  
Message-Id: <3.0.3.32.19990203202218.00778f80@mindspring.com>

Date: Wed, 03 Feb 1999 20:22:18 -0500

To: Old Tube Radios <boatanchors@theporch.com>

From: john <johnmb@mindspring.com>

Subject: Daburn.... interesting BA vendor

Mime-Version: 1.0

Content-Type: text/plain; charset="us-ascii"

A recent posting on another reflector led me to write for the catalog  
of DABURN...(www.daburn.com/~daburn/ or 201-768-9642.

What goodies they have!

- \* All manner of high voltage wire...size 22-10 in 20-40KV dc rating
- \* a huge assortment of wire,sleeving and cables.
- \* lacing cord... panel bushings...
- \* ceramic goodies:
  - feed through insulators of all shapes and sizes
  - beehive type ceramic standoffs
  - Cone standoffs
  - ceramic leadin insulators (up to 15" long)
  - ladder line spreaders
  - dipole center insulators
- \* lacing cord.
- \* threaded banana plugs (like found on B&W plug in coilsets)
- \* Bakelite "cord connector" circular plug/socket assy's like found on  
some old Tek test gear, National receivers, heath stuff.
- \* Bakelite lugged terminal strips of all sorts and sizes.

In short, all sorts of goodies for the Boatist... they're a manufacturer  
of all this stuff, and I dont know who distributes them, but it's worth

a call . I note that some of their wire is available in put-up lengths of as little as 100 feet.

I have no financial interest in anyone, least of all Daburn, but they've got some neat stuff. Who would'a guessed that someone is still making ceramic ladder line insulators these days!!!

Best  
/John

-----  
Date: Wed, 3 Feb 1999 21:24:13 -0500 (EST)  
From: Brien Pepperdine <pepperb@gov.on.ca>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: DeOxit -who has it and how did they get it  
Message-ID: <Pine.OSF.3.93.990203210913.24640C-100000@govonca2.gov.on.ca>  
MIME-Version: 1.0  
Content-Type: TEXT/PLAIN; charset=US-ASCII

Since it comes up once in a while, often people suggest DeOxit. It works. But the lonely fellow in Wolf Junction (or Toronto) says:  
But where to get it? My local emporium/I don't HAVE a local emporium does not stock it.

Or do they?

Call up Caig Labs at 1 800 CAIG 123 and ask them WHERE you can get it.

They will tell you the nearest joint (you might be surprised) or if it is not available in West Wolf Junction as it turns out you hope it might be at some obscure Grandpas Radios and Olde Tyme Sodas, Caig will sell it by mail to you.

After pondering, I finally called them 3 years ago and found two joints I did not know the existence of had the stuff. One actually drives down to the U.S. border to get the shipment (eh, maybe he gets single malt scotch as well to make the trip truly worth the effort...).

And I have been oxidation free ever since.

(I provide this tidbit since I think Caig's ads have not been in CQ of late, so the potential info might not be available to those without older CQs or were those who were not reading it, or only read QST which didn't have Caig ads that I can see. Can't say for QEX or Communications Quarterly).

Brien Pepperdine Amateur Radio Station VE3VAW Toronto, Ontario Canada  
ARCI #8773 - NORCAL ZOMBIE

-----  
From: w4tim@mindspring.com  
Message-ID: <008901be4fec\$b36b9180\$dca856d1@default>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Litature value estimate  
Date: Wed, 3 Feb 1999 22:15:24 -0500  
MIME-Version: 1.0  
Content-Type: multipart/alternative;  
boundary="-----\_NextPart\_000\_0084\_01BE4FC2.B1FF4960"

This is a multi-part message in MIME format.

-----=\_NextPart\_000\_0084\_01BE4FC2.B1FF4960  
Content-Type: text/plain;  
charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable

Fellow Boatanchorites,  
=20

Recently was advised of a large quantiy of litature related =  
to vacuum tube  
radio and audio equipment which is soon to up for sale. Not being too =  
sure of a fair  
value as to offer the current owner i wanted to ask if any of y'all =  
might have a better figure in meind for the items listed below. Please =  
reply to me directly, NOT through the Boatanchor group. Items are in =  
good to very good condition.

=20

Tnx es 73 de Tim W4TIM=20

=20

=20

Qty	Publication	Coverage
134	Bell Labs Record	1945 - 1976
130	Audio Engineering	1947 - 1960
95	Radio News	1943 - =
1959		
255	FM, Radio Electronics	1943 - 1972
50	Western Electric	1960 - =
1977		
43	High Fidelity	1951 - =
1960		

=20

-----=\_NextPart\_000\_0084\_01BE4FC2.B1FF4960  
Content-Type: text/html;  
charset="iso-8859-1"  
Content-Transfer-Encoding: quoted-printable





To: Old Tube Radios <boatanchors@theporch.com>  
From: "Lawrence R. Ware" <lrware@pipeline.com>  
Subject: Re: NC-57  
Cc: boatanchors@theporch.com  
Mime-Version: 1.0  
Content-Type: text/plain; charset="us-ascii"

At 19:52 02/03/1999 EST, Jderm740@aol.com wrote:

>Larry an all

>

>I have a NC-57B and an NC-57 manual. Is there any difference between a 57  
>Vannilla and a 57B. I figure if anybody knows Larry will.

>

>Jack Jderm740@aol.com

>

Thanks for the vote of confidence, but you got me.... :-(  
I have some docs on the -57 (Sams and Riders) but nothing on  
the "B" model.

Perhaps one of our more knowledgeable National Guru's will  
let us know...

-Larry

# Larry Ware  
# Admirer, Collector, Restorer of National Radio Company  
# receivers and other artifacts.  
# Orlando, Florida  
# lrware@pipeline.com

-----  
Message-ID: <36B91751.E8E9204F@ix.netcom.com>  
Date: Wed, 03 Feb 1999 21:43:13 -0600  
From: Niel Wiegand <nielw@ix.netcom.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
CC: Boatanchors Mail List <boatanchors@theporch.com>  
Subject: Re: NC-57  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Jack,

I believe the only difference between the 57 and 57B is the wiring of  
the accessory socket to plug in the S-meter vs the Select-O-Ject.

For some more information on the '57 look at:

[http://www.io.com/~nielw/nat\\_list/nc57.htm](http://www.io.com/~nielw/nat_list/nc57.htm)

73, Niel-WA5VLZ Rochester, MN

>  
> Larry an all  
>  
> I have a NC-57B and an NC-57 manual. Is there any difference between a 57  
> Vannilla and a 57B.  
>  
> Jack

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Message-ID: <36B929F0.23668CCC@idirect.com>  
Date: Thu, 04 Feb 1999 00:02:41 -0500  
From: Jerry Proc <jproc@idirect.com>  
MIME-Version: 1.0  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Battery Chargers  
Content-Type: text/plain; charset=us-ascii  
Content-Transfer-Encoding: 7bit

Jderm740@aol.com wrote:

> As the charging continues, the amps begin to drop, but the voltage stays the same.  
> When the battery is fully charged the current is next to nil but the voltage is still up there.

To add to Jack's comments, the low current chargers (<8amp) sold for home use usually have three features:

- 1) Overcharging protection - Even though the current will fold back to nearly zero and be momentarily pulsed when the battery is fully charged, I would recommend that the charger be disconnected once the battery appears fully charged. If charging a battery indoors, definitely disconnect the charger once the battery appears to be fully charged or risk having the electrolyte ooze out the filler holes. This happened to me last week while evaluating the condition of a car battery as a BA power source.
- 2) Reversed polarity protection - no output will be delivered if the the wrong polarity is connected.
- 3) Cannot be used as a power source - Unless attached to a battery, the charger will not output anything. This can be a royal pain when the battery is so flat that there is not enough terminal voltage left to trip the charger. In that case I have connected the charger to a regular 9 volt battery then connected that pair

across the car battery and immediately removed the 9 volt battery. That's enough to trick the charger into delivering full output.

BTW, the small manual that comes with the charger also has some great information about battery care and precautions - many of the same caveats that have highlighted by various individuals.

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Regards,  
Jerry Proc VE3FAB    jproc@idirect.com  
Web:            www3.sympatico.ca/hrc/haida  
HMCS HAIDA Naval Museum, Toronto Ontario

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Message-Id: <199902040505.VAA17842@mail-gw2.pacbell.net>  
From: "Arden Allen" <gumbear@pacbell.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: EC8010  
Date: Wed, 3 Feb 1999 21:09:01 -0800  
MIME-Version: 1.0  
Content-Type: text/plain; charset=ISO-8859-1  
Content-Transfer-Encoding: 7bit

Anchorists;

Been slugging it out with a recently acquired Hewlett Packard 608F signal generator. Although I've managed to collect a few of the 4042 and 4043 pencil triodes for the oscillator and output amplifier respectively I have yet to come across an EC8010. That tube is the buffer between the oscillator and output stages. Close examination with an eye loupe reveals it to be a UHF triode (9 pin miniature) with a very fine mesh grid. I don't find it listed in my TV-7 and B&K 606 tube tester setting charts so I have no way of measuring its performance. I guess I'll have to break down and buy a couple of spares. Do any Listees have any NIB stock on this rarity? Before I go searching for commercially available tubes thought I would help to relieve some excess stock here. Much obliged.

Arden Allen    KB6NAX    Vallejo, CA    gumbear@pacbell.net

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Message-Id: <199902040515.AAA37364@ns5-1.CC.Lehigh.EDU>  
Date: Thu, 04 Feb 1999 00:15:18 EST  
From: ail0@lehigh.edu (ARTHUR I. LARKY)  
Subject: Re: Standard Resistor and Capacitor Values  
To: Old Tube Radios <boatanchors@theporch.com>

Yes, but the way I prefer to look at is as follows:



The values which are chosen in the manner that Barry indicates have the property that they are equally spaced on a logarithmic scale. The consequence of which is that no matter how un-controlled your manufacturing process may be, EVERY resistor you make will be within the 20% range. For example, 10 ohms plus 20% = 12 ohms and 15 ohms minus 20% = 13 ohms; so any resistor whose value lies between the 20% standard value of 10 and the 20% standard value of 15 can be sold either as a 10 ohm or 15 ohm resistor and will be within tolerance.

Similarly, 10 ohms plus 10% = 11 ohms and 12 ohms minus 10% = 10.9 ohms, so any resistor you make that is between 10 and 12 ohms is within 10% tolerance of a nominal value.

The same relationship holds for the 5% values. So if you need 5% resistors, you just make a batch of resistors and select out and mark however many of whatever 5% values you need. What is left can be selected to make 10% or 20% tolerance resistors. If you need a lot of 5% 12 ohm resistors, then your ten and 20 percent resistors will have a "hole" around 12 ohms because you've pulled them all out to make the 5% batch. But you still will have a batch of 10% and 20% resistors. That's why I conclude that you can't make a bad resistor. If the values were not logarithmically spaced, but were things like 10, 20, 30, 40, ..., then, for example, if you make a batch of resistors, the values between 12 and 16 ohms could not be sold because they would be more than 20% off of tolerance. Another consequence of logarithmic spacing is that values in the next decade have the same "no-bad-values" relationship.

Barry is correct in pointing out that the same principle applies to music because the objective is the same, that is to be able to cover the scale with harmonically related tones.

Art K3HBA

>Did you ever wonder where the standard values of resistors and capacitors  
>came from? Why did values like 47 ohms come to be rather than 50 ohms?

>Well the answer really has more to do with music than with electronics.

>

>Assuming you can manufacture an electronic component to a given tolerance,  
>what are the best set of values to provide over a range? The answer is the  
>same as in music. Each value is related to its neighboring value by a  
>fixed relationship. We normally think that any value of resistance can be  
>matched to within 10 percent with the proper choice of a 10 percent  
>tolerance resistor.

>

>In music, there are twelve notes in an octave (forget the 8 regular notes,  
>I am including the sharps and flats here). The relationship between these  
>is that the next higher note's frequency can be obtained by multiplying the  
>present frequency by 1.21153. The frequency of the next lower note can be  
>obtained by dividing it by the same constant. With 12 notes in an octave,  
>this constant is the 12th root of 2. Maybe there is a music theory expert

>on the group that can explain why an octave, which from its origin implies  
>something to do with 8, really means a doubling or halving of frequency. \*

>

>In electronics, we need many decades of component values so decades are  
>used rather than octaves. Thus a similar relationship holds. The standard  
>20% value components are based on the 6th root of 10 and the standard 10%  
>components are based on the 12th root of 10. Likewise the standard 5%  
>components are based on the 24th root of 10. But the standard 1%  
>components are slightly different being based on the 96th root of 10  
>instead of the expected 120th root.

>

>The boatanchor relationship comes about here because in the early days of  
>radio, it was difficult to manufacture components to tight tolerances.  
>Sometimes you might think a resistor has drifted in value (and \_many\_ do),  
>but it might really be within the original 20% tolerance. Those old  
>designers, fortunately, built good radios that would "tolerate" this. You  
>cannot always say the same about modern "intolerant" designers.

>

>So for those interested, here is a table of standard 20, 10, and 5% values  
>along with the "exact" value taken from the math.

>

> 73, Barry WA4VZQ ornitz@tricon.net

[Table deleted to save bandwidth.]

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End of BOATANCHORS Digest 2413

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